A STUDY OF THE IMPACT OF ACQUISITION REFORMS ON PRE-AWARD SOLICITATIONS

THESIS

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Jason J. Bock

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Abstract

The purpose of this study was to develop insights into the impact acquisition reforms have had on pre-award solicitations. The changing nature of the marketplace and the reduction in the size of the defense budget has brought about a series of sweeping acquisition changes that include the Federal Acquisition Streamlining Act (FASA) and Lighting Bolt initiatives.

A qualitative analysis of six cases and interviews of people actively involved in the solicitation process revealed acquisition reform benefits: increased performance, cost savings, and reduced acquisition time. These benefits were achieved through the use of performance-based contracting and adaptation of several commercial business practices. Performance-based contracting was not found to affect the level of competition for solicitations.

A STUDY OF THE IMPACT OF ACQUISITION REFORMS ON PRE-AWARD SOLICITATIONS

I. Introduction

General Issue

There have been many publicized horror stories involving overpriced parts, major weapon system failures, and cost and schedule overruns. In reaction to these stories, Congress and the DOD have enacted several acquisition reforms which they expect will reduce infractions and enhance the acquisition process. Specifically, these laws are designed to ensure the government gets a quality product at a fair price. One of the more significant acquisition laws is the 1984 Competition in Contracting Act. CICA is designed to promote "full and open" competition by enabling all interested sources to compete for an award. The theory behind this act is that improved competition lowers prices. To promote

competition, bidders need to have a precise description of what they are bidding on. By using detailed specifications, known as military specifications or mil specs, the government dictated exactly how to build a product.

The desire to increase competition and level the playing field lead to the development of the 31,000 military specifications and standards now used in defense acquisition. The use of mil specs was not a problem when the DOD lead the commercial industry in technology and could support a large industrial base. However, in the past decade, the uniqueness of defense technology has diminished as commercial firms have made dramatic leaps in technology and production processes. The rate of technological change has increased to the point where it is impossible for military specifications to keep up. Some of the consequences the DOD faces by continuing to rely on military specifications are

- higher unit costs for defense products than for commercially available equivalents
- lack of access to state-of-the-art technologies increasingly found in the commercial sector
- loss of capacity for production surge as increasing numbers of companies leave the defense industrial base. (Van Opstal, 1991:1)

Compounding the problems associated with military specifications has been the continued reductions in the Department of Defenses budget. With "annual purchases by the DOD totaling almost $170 billion" (Packard, 1986:3), it is not surprising that numerous studies have been conducted to recommend reforms that will make the procurement process more efficient and less costly. One key aspect of these reforms has been the increased emphasis placed on commercial business practices.

The use of commercial practices has long been seen as a way to cut costs, reduce acquisition time, and increase the supplier base. In 1986, the Packard commission recommended that

> rather than relying on excessively rigid military specifications, DOD should make greater use of components, systems, and services available "off-the-shelf." They further stated that procurement officers must be allowed and encouraged to solicit bids through purchase descriptions that are stated as functional performance characteristics rather than through detailed design and "how-to" specifications. (Packard, 1986:23,26)

The Defense Science Board conducted a study of the Packard Commission recommendations and concluded that the "use of commercial products should result in large annual savings

and that savings through the use of commercial practices for military products should be even greater" (Burnett and Perry, 1986: vii)

One of the fundamental commercial business practices the DOD has implemented has been the shift towards performance-based contracting. Performance-based contracting relies on performance or functional, rather than design, specifications to describe the product or service the government is procuring. These specifications describe the result the government is looking for and avoid prescribing how the contractor is to build a product. The contractor maintains control of the design and uses the processes that best meet their needs. This allows the contractor to use innovative technologies and creativity to answer DOD acquisition needs. Increased design freedom is expected to attract a wider range of potential contractors, fostering competition, which should reduce cost and increase quality.

Problem Statement

Since the government has committed to adopting more commercial business practices, it is essential to validate the benefits of these practices. The specific problem addressed by this thesis is determining the advantages and/or disadvantages of pre-award acquisition reform. Specifically, the use of performance-based solicitation methods.

Research Questions

In consideration of the previously mentioned problem statement, three research questions have been identified. These questions are:

1. How do commercial businesses contract for early development and production?
2. Is performance-based contracting in the DOD a reasonable adaptation of commonly followed commercial practices?
3. Do acquisition reforms benefit the government in the pre-award phase of the acquisition lifecyle?

4. Has the use of performance-based contracting had an impact on the level of competition?

Definition of Terms

The following list of terms are used throughout this thesis and their definitions have been provided to establish clarity and collective terminology.

Commercial Item Description (CID) - A type of purchase description used by government agencies in procuring commercial products and commercial-type products (Nash and Schooner, 1992:77).

Commercial Practices - Generally accepted industry acquisition practices based on the Uniform Commercial Code (Humerick and Minnich, 1994:5)

Commercial Product - A product that is regularly used for other-than-government purposes and that is sold to the general public in the course of normal business operations at a catalog or market price (Nash and Schooner, 1992:78)

Design Specifications - Specifications that set forth precise measurements, tolerances, materials, in-process and finished product tests, quality control measures, inspection

requirements, an other specific information (Nash and Schooner, 1992:135).

Functional Specifications - A type of performance specification which describes the Government's ultimate need or objective without specifying any particular approach or type of product which should be used to achieve the objectives (Cibinic and Nash, 1986:343).

Performance-based Contracting - Using contracts that (1) state their requirements in performance based specifications, (2) allowing the contractor to maintain control of the detailed design, and (3) allowing the contractor to use the processes that best meet their unique capabilities and needs. (AFMC/PKP Uncoordinated Draft, 1995:1)

Performance specifications - Specifications that set forth operational characteristics desired for an item. In such specification design, measurements and other specific details are not stated nor considered important so long as the performance requirement is met. (Cibinic and Nash, 1986:341)

Uniform Commercial Code - The body of law drafted with the goal of creating a uniform system of commercial law among the states. The provisions of the UCC usually take precedence over the common law of contracts (Cheeseman, 1991: 162).

Scope of Research and Limitations

This thesis explores the current use of performance-based solicitations in the Air Force. Since the majority of acquisition dollars are spent on large programs, it was determined that the case samples would be taken from that group. Specifically, the case studies will come from contracts that will be administered at Oklahoma City Air Logistics Center and Eglin, Los Angeles, and Wright-Patterson Air Force bases.

Although the scope of analysis is primarily limited to large Air Force acquisitions, all commands and branches of the Department of Defense, as well as all agencies of the federal government are affected by the recent changes in acquisition laws. Consequently, the results of this research should be applicable to all of these agencies.

Studying the effect of performance-based contracting is particularly relevant considering the Air Force is at the forefront of acquisition change. The contracts administered by the Air Force represent a significant portion of the defense budget and any methods of contracting that saves money or reduces acquisition time will have a notable impact on the Department of Defense's ability to perform its mission.

II. Literature Review

Chapter Overview

The first half of the 1990s has been a particularly turbulent time for those involved in federal acquisition. The Acquisition Streamlining Act of 1994, the National Performance Review, and a reform-minded Secretary of Defense have all given impetus to sweeping changes in acquisition policy. The foundation of these changes is the attempt to more closely model defense acquisitions after their commercial counterparts. A recent American Defense Preparedness Association study found that

> the DOD pays a premium of between 30 and 50 percent more for products than for the same or similar items sold to a commercial enterprise because of DOD laws and regulations, and military specifications. (AMC, 1994:3-1)

Few people would argue that the adoption of commercial business practices will hurt defense acquisition, but the end result of these changes is still unknown. Estimates of cost savings span the spectrum of a few million to several billion dollars.

Before discussing the value of adopting commercial business practices in defense acquisition, it is important to understand some of the salient characteristics of commercial acquisitions. It is also necessary for us to develop a basic understanding of how the government has traditionally done business. Finally, we must look to see how today's procurement system developed and why it has taken on the shape that it has.

This chapter is divided into four major sections. The first section will review some commercial business practices applicable to defense acquisition. The second section will describe the past acquisition method, the recent legislative changes, and examine the performance-based characteristics many new acquisitions possess. The third section will examine some critical relationships that are the driving force behind the move towards commercial practices. The fourth section will discuss some of the concerns directed towards the recent trend of moving to a performance-based acquisition system including some cases of when a performance-based contract should not be used. The chapter

will end with a statement of the specific propositions being investigated and some concluding comments.

Commercial Business Practices

Increasing the use of commercial business practices in the Air Force has become more attractive as public attention and dwindling budgets have magnified the cost of weapon systems. Commercial business practices, as a whole, have been evolving since the beginning of the industrial revolution and encompass a wide range of subjects. The scope of business practices discussed here will be limited to a few of the commercial practices applicable to the Department of Defense with special emphasis placed on specifications. The practices covered will include market research, best value buying, supplier relationships, specifications, and contracting practices. Some of these commercial practices have already been incorporated into federal acquisitions while others can not be implemented until further changes are made to acquisition laws as they are now written.

Market Research. Market research, for a commercial business, is a continuous activity used to determine the

"availability of products and sources, the extent of competition, the range of performance characteristics, current market prices, and support services" (Rhoads et al., 1992:2-1). Market research is used to help businesses determine the appropriate niche for their products and to keep them abreast of what their competition is doing.

The government conducts market research to collect information about the entire market so that the most suitable approach can be taken to satisfy an agency's needs. The difference in the governments method is that the Government only looks at the market at specific times (i.e., pre-solicitation) and does not keep continuously updated. This occasionally hampers its ability to write specifications for the newest technologies because it lacks up-to-date knowledge on technology trends.

Best Value Buying. This is the standard method for buying in the commercial market and has only recently been put into practice by the government. The process of buying for best value means evaluating and buying a product based on an assessment of pre-picked factors, such as technical capability, quality, delivery, and cost. The "best value"

will be different for every acquisition and needs to be determined on a case by case basis. The government has increasingly used best value buying, using evaluation criteria such as the contractor's past performance, in making the award determination. However, the commercial practice of buying for best value is still less rigid than the government's, primarily because a commercial business's award decision is less contestable, allowing the commercial buyer more latitude in making awards.

Supplier Relationships. The commercial approach to supplier relationships is slightly different from the government one. The business-supplier relationship in both the government and the commercial world is mutually beneficial to both parties. However, commercial buyers are able to find a low priced reliable supplier and stay with them. This practice builds loyalty between the supplier and buyer and often leads to preferred customer rates. Another benefit to the buyer is that "Good suppliers invest a lot of time and effort assessing their customer's needs and adapting their products to meet them" (Rhoads et al., 1992:4-2). The supplier doesn't want to lose a valued

customer and will go extra lengths in providing innovative products and support services. The government is forced by law and regulation to seek competition and can not promise the benefits that a stable, long-term relationship offer. The need to seek competition necessitates a lack of commitment to any individual contractor and can foster a perception that the government isn't concerned with any individual contractors well being. This can discourage suppliers from giving extra effort, because they are not assured of being rewarded, and can even deter some from doing business with the government at all.

Specifications. The specification requirements of the government are notorious for increasing the cost of the products it buys. The government has traditionally stated its requirements in the form of long-detailed, design specifications. Commercial business practices advocate just the opposite. Commercial buyers use short functional specifications that maximize the suppliers freedom and do not limit the choices of the buyer.

> All told there are about 50,000 acquisition documents in the DOD index, 34,000 of which are military specifications and standards. The Defense Science Board has estimated that as many as 20,000 of these

> could be replaced by commercial product descriptions or processes. (Van Opstal, 1991:43)

Changes in recent legislation have emphasized the use of commercial style specifications. The Federal Acquisition Regulation (FAR) part 10.002 now states that agencies shall use the following preferences for stating descriptions:

> 1. A standard established by a private sector body and available for public use;
> 2. Commercial item descriptions;
> 3. Government product descriptions stated predominately in terms of function to be performed or performance required;
> 4. Government product descriptions stated predominately in terms of design specifications.(FAR,1995:16,428)

The successful use of performance specifications and Commercial Item Descriptions will require a change in the attitude and perception of engineers and customers who write specifications. Once this happens, these new guidelines should dramatically increase the use of commercial descriptions and performance specifications. The last commercial business practice to be covered is the contracting process itself.

> Contracting Process.
> Commercial firms usually rely on the Uniform Commercial Code as a regulatory guideline for general requirements on standard, market wide contracting practices.(Rhoads et al., 1992:5-1)

A Standard form of contract is used for most purchases by commercial businesses. These contracts are short and rely on standard business practices in regard to quality control of the suppliers manufacturing processes. On the other hand, the federal government is governed by thousands of pages of regulations and uses complex contracts with numerous clauses. These clauses place more risk and duties on the contractor and many of them are incompatible with the objective of increased efficiency and may hinder the goal of increasing our reliance on commercial practices.

Acquisition Methods

The Restatement, Second, Contracts 1 (1981), defines a contract as: "a promise or set of promises for the breach of which the law gives a remedy, or the performance of which the law in some way recognizes a duty" (Cibinic and Nash, 1986:151). The method of contracting typically used in government procurement has specified a fixed outcome in which the government uses design specifications to precisely define the product it wants. If the specific outcome is not achieved, the government may refuse the product or service

and seek redress. However, this type of contract also places the responsibility for deficiencies in the specifications upon the government (the drafter) and provides no recourse, besides expensive corrections, if the results of the specification differ from the governments desired outcome.

The long history of detailed design specifications dates back to the industrial revolution when parts had to be standardized to allow interoperability and to protect against equipment failure in the extreme conditions faced by the military. Many other reasons, including protection from contractor fraud and the effort to promote fairness, have continued the trend of using military specifications to satisfy an agency's need.

These types of specifications may have been viable when the defense budget was large enough to single-handedly support the defense industrial base. However, as the defense budget gets smaller, the general consensus of the Process Action Team on Military Specifications and Standards and the United States General Accounting office is that the use of performance specifications and commercial buying

practices will reduce the cost of overhead for both the DOD and industry. It will allow the defense industrial base the freedom to become more efficient as defense companies use the latest techniques and processes to manufacture commercial and defense goods in the same manner.

Many changes in acquisition policy, law, and attitude are essential for the use of performance-based contracting to be successful. One major tool for change was the Federal Acquisition Streamlining Act of 1994. This act established a clear preference for the use of commercial items over unique government-designed items. It raised the simplified acquisition threshold (i.e., small purchases) from $25,000 to $100,000 for most items, allowing the government to buy these items without having to follow the myriad of regulations that impose burdens on the supplier. The act also raised the threshold for certifying cost and pricing data from $100,000 to $500,000. In the past, the government had the option to request certified pricing data below $500,000 which required suppliers to prepare costly reports and be subject to post-award audits.

The act simplified record keeping for both the government and its suppliers and loosened statutory

> restrictions that prevent federal agencies from making advanced payments.(Miller, 1994:63)

Another result of the act is a move toward electronic contracting. This will replace the paper-based system now used and will allow anyone with an on-line computer to take advantage of government contracting opportunities.

Also in 1994, the DOD Process Action Team on Military Specifications recommended the Deputy Secretary of Defense direct that all ACAT programs for new systems, major modifications, and commercial items state their need in performance specifications. The Secretary of Defense, William Perry, took these recommendations to heart and

> launched a plan that will require purchasing agents to start ordering all goods using commercial practices and will call for special approval to use military specifications. (Valery, 1994:13)

The new method of contracting will use performance specifications to contract for a desired result. This type of contract often sets a range of possible outcomes and associated payments. Kettner and Martin (1995) define a performance contract as any contract that uses performance specifications and ties at least a portion of the contractors compensation to their achievement. Hall and

Strucker (1971) define performance contracts as a contract in which the payment is contingent on the level of performance. In this type of contract, the contractor drafts the specifications and the courts have held that

> Where an item is purchased by a performance specification, the contractor accepts general responsibility for design, engineering, and achievement of the stated performance requirements.(Cibinic and Nash, 1995:271)

Hall and Strucker (1971) consider the crucial distinction in the two types of contracts to be the allocation of authority over day-to-day operations. In a contract design specifications, the government would contract some resources and direct their use to achieve some desired result (i.e., to build a brick wall, the government would contract with a construction company and detail exactly how the contractor was to build the wall). In a performance-based contract, the government would contract for the results (i.e., The government would simply contract for the brick wall).

The Army, in its' effort to promote performance specifications, published a pamphlet to assist DOD personnel in developing and using performance specifications. The

four common steps in the acquisition process of many performance specifications are provided to give a basic understanding of the acquisition process .

> 1. Government solicitation preparation - The government Identifies essential performance requirements and eliminates any non-value added requirements.
> 2. contractors proposal submission - Prospective contractors develop their own specifications and approaches and submit them.
> 3. Government has best value source selection - Proposal chosen on best value and the contractor's specifications become the Government's specifications as well.
> 4. Contractor produces Item. (AMC, 1994:1-7,8)

This process differs from the "traditional" method of developing specifications and will require a change in thinking by many acquisition personnel if it is to be successfully implemented.

The last major change to affect acquisition are reflected in the "Lighting Bolt" initiatives of the Air Force. These 10 initiatives focused on changing policy in an effort to keep pace with the zeal for acquisition reform. The majority of these initiatives changed the pre-award phase of the acquisition lifecycle by creating RFP "swat teams", standing acquisition strategy panels, and the Single Acquisition Management Plan. Other initiatives reorganize

the System Program Office, promote paperless contracting, promote the use of past performance in Source Selections, and place emphasize on training and reduced lifecycle time.

Critical Relationships

One of the fundamental benefits of adopting commercial practices is that these practices promote competition.

> One of the most attractive features of competitive markets is that they result in allocative efficiency, which means that they fully exploit the possibilities for mutual gain through exchange. (Frank, 1991:342)

No market is perfectly competitive, but the closer a market gets to perfect competition, the more efficiently resources will be allocated and the lower the price will be.

Another benefit of the commercial market is that suppliers are motivated by competitive forces to produce innovative products. Commercial business are always looking for the competitive advantage new technology will give them.

Commercial business practices are by definition the most efficient way yet discovered to do business. These practices, like the use of performance specifications, have evolved over time and been shaped by the intense competitive pressures exerted by an increasingly international economy.

Companies that use different practices may have higher costs and go out of business. Economic theory suggests that any commercial business practice more effective than another will result in higher profit for the companies that use that practice. The lure of higher profits will eventually lead to all companies using that practice or being disadvantaged in the market. This new practice will then be included in the standard "commercial business practices" we have discussed in this chapter and be looked to for incorporation into federal acquisitions.

The fact that performance-based contracting is the standard method of contracting for commercial businesses suggests that it is the most efficient method to contract for goods. In theory, the governments adoption of commercial business practices will make it more efficient, saving both time and money.

However, federal acquisition is governed by many rules and regulations not present in the private sector. In some cases, the government is buying defense-unique goods from a very limited and sometimes sole source market. Under these conditions it might not be reasonable to expect the outcome

from the use of commercial business practices to closely model the outcome that would occur in a fully free commercial market.

Disadvantages of Performance-based Contracting

One of the largest problems associated with the use of performance-based contracting is defining and measuring the desired level of performance or result. It is fairly easy to define and measure the top speed an airplane can achieve but the task becomes much harder when the desired result is a certain level of education or health care. Performance specifications that are too qualitative and not quantitative enough can lead to instances where we get a product that meets the specifications but is not what we really need. Carpenter & Hall and Kettner & Martin agree that the major drawback to using performance contracts is the difficulty involved in developing valid outcome measures.

Performance specifications are not ideally suited for every situation and the type of specification needs to be carefully considered when planning an acquisition. The Process Action Team recognizes the need for some items to be

standardized to facilitate volume buying, interoperability, and interchangeability. The question when buying parts is whether a spare part is going to be repaired or replaced. An item that needs to be repairable will need to be standardized to simplify maintenance, supply, and repair training and will not lend itself to a performance specification. In addition to repairable parts, the Army Material Command has exempted from the use of performance specifications: materials that are already defined by a specific set of commercial requirements, construction, and any procurements where performance specifications are not in the governments best interest. This last exemption is a catch all that needs to be monitored closely to prevent change resistant personnel form doing business "as usual".

Propositions

This has been a relatively short review of some of the recent changes to occur in Federal acquisition. In spite of this, this review has highlighted some important ideas that seem to be consistently repeated. Theses ideas are:

1. Commercial business practices and more specifically

performance specifications will save the government time and money.

2. Change in the way the government conducts acquisition is going to continue for some time.

3. Performance specifications may not be suitable for all contracting situations.

Conclusion

There is a lack of information regarding the actual benefits the DOD and the federal government will receive from the adoption of commercial business practices. An examination of one of these practices, performance-based contracting, should go a long way in filling this information gap. The next chapter explains the methodology used to investigate the research questions posed in chapter one.

III. Methodology

Chapter Overview

This Chapter addresses the research methodology used in this study by examining the research design and the two data collection methods employed: the literature review and the case study analysis. Following this examination, this thesis explores how these methods are used to answer the research questions posed in chapter one.

Research Design

"A research design is the logic that links the data to be collected (and the conclusions to be drawn) to the initial questions of the study" (Yin, 1984:27). According to Yin, there are three conditions which make case method the appropriate research design for this study:

1) the type of research question
2) the control an investigator has over actual events
3) the focus on contemporary versus historical phenomena. (1984:13)

The applicability of each condition is discussed below.

Type of Research Question

The case study is most appropriate for answering "how" and "why" questions. As described in chapter I, the purpose of this thesis was to study the affect acquisition reform has had on solicitations. A restatement of this purpose would be: How does acquisition reform affect solicitations? The second criteria for determining a research method is the amount of control the researcher has over the subjects.

Extent of Control.

The subjects of this study are solicitations being conducted at various bases in the Air Force Material Command. Essentially, no control over behavioral events was available for the purposes of this research. Control existed in the types of questions asked interviewees and the independent analysis of RFPs.

Focus

Although historical data is used to analyze each solicitation, the major emphasis of the study is on the

impact performance-based specifications and other acquisition reforms have had on current solicitations.

Limitations of the Case Study Method

Their are several inherent limitations in the case study method. The case study method can only describe what events have occurred and does not have the benefit of controlling the variables involved. Because of this, the predictive value of the case study is limited.

The second limitation is in the difficulty of making generalizations. In a case study, only a small number of data points are analyzed and these points might not characterize the population as a whole.

Finally, the case study relies heavily on the investigative expertise of the researcher since the results can not be validated by repeated experimentation.

Data Collection

The primary data collection method was through archival research, solicitation review, and telephone/e-mail interviews. Six solicitations from various locations were selected based on there application of acquisition reforms.

The small number of cases researched is due to the small number of solicitations sufficiently advanced in the acquisition lifecycle to study. Where possible, data from original draft RFPs were collected and compared to data in the final streamlined RFPs. Discussions were conducted with people actively involved with the source selection process and the solicitations to gather first-hand, personal opinions on the impact created by the reforms.

Data Analysis

Each RFP was examined for acquisition reform aspects. The background, general characteristics, evaluation criteria, and special features of each case were documented and evaluated for impact. Information from interviews was used to supplement analysis of the RFPs.

Summary

Chapter III described the case study method, explained why it was chosen for use in this study, and described some limitations of this method. This chapter also discussed the data collection and analysis methods. The next chapter details the data collected in this study.

IV. Case Studies

Chapter Overview

This chapter synopsizes six request for proposals (RFPs) which have incorporated performance-based contracting and implemented acquisition reform. It will cover the RFPs background, general characteristics, evaluation criteria, and special features. The six RFPs synopsized in this chapter are all at different stages in the acquisition lifecycle. The breadth of the types of solicitations is believed to be a good sampling of current major acquisitions.

Introduction

Many insights can be gleaned from an examination of initial solicitations being conducted according to the Acquisition Streamlining Act and Lighting Bolt initiatives. The emphasis of the first was on performance specifications, commercial items, and commercial business practices while the lighting bolts focused on RFP support teams, reduced paperwork, using past performance, and reducing cycle time.

The broader goal behind these two initiatives was to reduce the time and cost of major acquisitions.

All of the RFPs examined contain reform elements intended to achieve time and cost savings. One common method used to achieve these benefits is to reduce the overall size of the solicitation package. In order to reduce the number of total pages, the procurer has had to delete many requirements such as special contract provisions and data item requests that have been burdensome to contractors in the past. A second common practice is to replace detailed Statement of Works (SOWs) with broader, performance-oriented Statement of Objectives (SOOs).

The overall impact of these changes, in terms of cost and time savings, will not be known for many years. However, Air Force acquisition policy now directs the use of performance specifications and commercial item descriptions in Acquisition Category (ACAT) I-IV programs. Therefore, it is important to make initial observations on how this policy is working to make sure the actual outcomes are in line with the original intentions of the policy.

One of the early phases of the acquisition lifecycle that reforms have had a chance to affect is the Source

Selection process. After several discussions with people actively involved in the different source selections, some early trends have appeared. It appears source selection teams, WCMD, RCDC, GPS II, are smaller than those used in the past for similar acquisitions. While the manpower has been reduced, the overall length of the source selection has remained roughly the same. One reason for this might be that many of the original solicitations, Pacer Craig, RCDC, T-38 Upgrade, GPS II, had to be revised to incorporate the reforms which extended the time. Another reason might be that source selection members were not as familiar with proposals based on Statement of Objectives. Both problems should diminish and reductions in life cycle time for this phase of the procurement should improve in the future. One problem that might not diminish in the future is that smaller teams are being asked to evaluate a wider range of proposals. These reduced teams have to evaluate several different approaches including unique Statement of Works, CDRL lists, and Integrated Master Plans and make a judgment on which satisfies the requirements and represents the best value to the Government. The uniqueness of these proposals,

combined with reduced manpower, could lengthen this phase of the procurement and nullify any previous time reductions.

Interview Questions

In addition to the hard data collected, two Procurement Contracting Officers and three Centralized RFP Support members provided information in response to open ended interview questions. The following four questions were asked:

Do most people like the acquisition reforms?

The unanimous opinion was that most people do favor the initiatives. However, while in favor of the changes, several of the interviewees expressed dissatisfaction at having to redo an RFP in the middle of a Source Selection in order to comply with the mandated changes. In their opinion, there should be a point where initiated RFPs should be exempted from changes.

Does anyone see any problems with the changes?

The consensus was that many of the program offices are still experiencing minor problems with the changes. Many expressed uncertainty as to the value and outcome of using mostly performance specifications. A major complaint was

that "if the government knows exactly what it wants, why doesn't it just ask for it?"

Did the changes affect competition?

All six of the programs were competitively solicited and none have been awarded on a sole source basis. None of the interviewees had seen any noticeable change in the level of competition. However, most of the programs examined in this thesis are for large dollar, highly specialized products with limited market opportunities. One would not expect the introduction of performance-based contracting to have a significant impact on the size of these markets. There are only so many companies that can build a satellite and these same companies would likely bid on a project no matter what kind of specifications or objectives were used. However, the use of performance-based contracting for more widely produced, subcontracted components of these systems might evidence increases in competition .

Are any more changes needed in the future?

According to interviewees, most people involved with the programs want to get comfortable with the current changes and see how they work before any additional changes are implemented. Introducing more reforms before we've had

a chance to fully evaluate the impact of current changes may overload the system.

Wind Corrected Munitions Dispenser (WCMD)

Background. Information on WCMD was obtained through correspondence with the Program Executive Officer, review of the RFP document, and through the World Wide Web (SAFAQ/acq_ref/wcmd: WWWeb). The WCMD program is an Acquisition Category II program to develop a "smart" tail kit to replace existing tail kits on cluster munitions. These munitions, by making corrections for wind effects and errors during fall, will be capable of delivery from medium to high altitudes. WCMD weapons are planned for employment on the B-1, B-52, F-15, F-16, and F-117. The WCMD is an ideal lead program because there is minimal technical risk. The total acquisition will cost about $1.1 billion with 120 million of that consisting of research and development costs. This solicitation has been awarded to Lockheed/Martin and Alliant Techsystems and will be administered from Eglin AFB.

General Characteristics. The length of the entire RFP Package was 105 pages containing a 12 page Systems

Requirement Document and 30 pages describing how the proposals will be evaluated. The small size of this document was attainable because the contractor is required to propose the Statement of Work and specifications they will follow. There were 11 CLINs, 19 CDRLs and 4 military specifications and standards required. The Mil Specs required a waiver to be included in the RFP and dealt with safety and integration concerns. The program team consists of only 20 people. In addition to a reduction in the size of the RFP and program team, the program went from Milestone Zero to contract award in one year.

Table 1
IMPACT OF CHANGES

Category	Impact
SPO Size	reduced to 20 people
Average Unit Production Cost	24% Estimated Reduction

Evaluation Criteria. The government used the Mil-Prime Approach for this solicitation. This allowed the contractor to develop the SOW, CDRLs, and System Specifications based on the governments requirements. A 215 page limit was imposed for all proposals. However, several attachments and exhibits were exempt form this page limitation. The RFP was

evaluated on affordability, technical, management, and instant contract price/cost.

Special Features. One of the distinguishing characteristics of this RFP was the intention to award the EMD phase of the contract to two contractors. The purpose of the multi-award was to have competition through the EMD phase cumulating in a fly-off for the manufacturing contract. A second special feature of the contract is the warranty. The contractor must propose a warranty that encompasses "(1) design and manufacture, (2) material and workmanship, and (3) availability guarantee through built-in-test (BIT)." (RFP F0826-95-C0001, p24).

Global Positioning System II (GPS)

Background. Information on GPS II was obtained through correspondence with the Los Angeles Air Force Base (LAAFB) Centralized RFP support team, review of the RFP document, and through the World Wide Web (SAFAQ/acq_ref/GPS_1, LAAFB/PA/gps_fs: WWWeb). GPS is a space-based radio-positioning system consisting of 24 satellites and associated ground control stations. The constellation of satellites provide navigation and timing information to an

unlimited number of civilian and military users. Sustaining this system requires continuos signal monitoring, regular satellite position updates, and replacement of aging satellites. This solicitation consolidated six separate ground control contracts into one and makes the prime contractor the system, space and ground, integrator. This solicitation was awarded to Rockwell International, space segment, and Loral Federal Systems, ground control segment, and will be administered at LAAFB.

General Characteristics. The length of the entire RFP package was 328 pages containing a 38 page Systems Requirement Document and a 1 page Statement of Objectives. There were 20 CLINs, a total of 58 pages with options, 3 CDRLs, and 2 mil specs and standards. In addition to reducing the RFP size, the use of performance-based specifications is expected to reduce the cycle time for the next block of satellites from 7 to 5 years and reduce the SPO team size from 145 to 90. The draft RFP, before acquisition reform, had a 20 page Statement of Work, 58 CDRLs, and 21 military specifications and standards.

Table 2
IMPACT OF CHANGES

Category	Impact
SPO Size	145 to 90 people
CDRLs	58 to 3
Mil Specs & Standards	21 to 2
Cycle time	7 to 5 years

Evaluation Criteria. The government mandated the offeror adopt the Integrated Product Development (IPD) philosophy which requires the offeror to develop an Integrated Master Plan, Statement of Work, Work Breakdown Structure, and Integrated Master Schedule. The IPD approach also requires the contractor to use Integrated Product Teams for each of its products. The government also encourages the offeror to propose enhancements that will improve the best value of the proposal. Page limits were set for 2 of 5 volumes and page goals for the rest. The RFP was evaluated on ability to meet requirements and best value features with specific criteria listed as: affordability, management, cost, and software development capability. (RFP F04701-95-R0001, p190)

Special Features. One of the characteristics of the GPS contract that differentiates it is the warranty. The contractor will replace any block II satellite if it becomes nonoperational before the expected life of 10 years. A second feature that set this RFP apart was the requirement that the offeror submit all of their program data by electronic means. This requirement is expected to cut down on paperwork and speed up the acquisition process.

Range and Communications Development Contract (RCDC)

Background. Information on RCDC was obtained through correspondence with the LAAFB Centralized RFP support team, Procurement Contracting Officer, and review of the RFP document. The RCDC program provides for design and developmental engineering for an upgraded communications system to replace the one currently in use by the Communications and Range Segments of the Air Force Satellite Control Network. This is a $279 million dollar contract administered at LAAFB.

General Characteristics. The length of the entire RFP package was 400 pages containing a 3 page SOO and a 118 page system spec for the communications segment of the Common

User Element. There were 13 CLINs, 17 CDRLs (50 pages), and 0 mil specs and standards required. Before acquisition reform, the Draft RFP had a 29 page SOW, 32 CDRLs, and 12 mil specs and standards.

Table 3
IMPACT OF CHANGES

Category	Impact
SOW to SOO	29 to 3 pages
CDRLs	32 to 17
Mil Specs & Standards	12 to 0

Evaluation Criteria. Award of this solicitation was made on a Best Value basis. The evaluation criteria were management, technical, and cost with past and present performance being considered in a risk assessment. The offerors had to create a SOW, Integrated Master Plan, and Work Breakdown Structure that met all of objectives in the SOO.

Special Features. One of the characteristics of this solicitation that differentiates it is the requirement for the contractor to provide level-of-effort program management and engineering support to the Satellite and Launch Control SPO in the areas of hardware and software developmental

engineering, systems testing, and integration. The purpose of this is to increase the contractors ability to respond to new and changing customer requirements.

Pacer Craig

Background. Information on Pacer Craig was obtained through correspondence with AFMC/PK, review of the RFP, and through the World Wide Web. (SAFAQ/acq_ref/pcrag_1) The Pacer Craig program updates the existing KC-135 with a Compass replacement System, Radar Replacement and Display Modernization/multifunction display, and a GPS/Flight Management System.

Pacer Craig is an unusual acquisition reform case. The original solicitation was written before the reforms took affect and the Source Selection had already received proposals before it was decided to apply the reform initiatives to this program. A tiger team was sent from AFMC to help rewrite the new RFP applying all of the acquisition streamlining techniques. This RFP was then given to all of the offerors that responded to the original solicitation. The contract was awarded to Rockwell

International, Collins Avionics and Communications Division and is administered at Oklahoma City ALC.

General Characteristics. The length of the entire RFP package was 512 pages with approximately 300 pages dedicated to the SOW. The RFP team transitioned the SOW to a performance oriented SOO. In one case, a 60 page SOW was transformed into a 12 page SOO. The team also reduced the required CDRLs from 331 to 39 and the mil specs and standards form 6 to 0. There were 54 pages of CLINs.

Table 4
IMPACT OF CHANGES

Category	Impact
CDRLs	6 to 0
Mil Specs & Standards	331 to 39

Evaluation Criteria. Improvements above the minimum requirements were encouraged with a note of caution that best value selection still places substantial weight on cost/affordability. A 250 page limit was imposed on volume I, technical proposal, while volumes II-V only had page goals. Each proposal was evaluated for compliance within the following criteria: technical/software, schedule/production, instant contract cost/price, and

management with relevant past and present performance assessed as risk factors.

Special Features. One special feature of this RFP was the requirement to use commercial-off-the-shelf/Nondevelopmental Items with minor mission modifications. The government also provided the GPS equipment as government furnished property. A second distinguishing feature was the requirement to separately price a 5 and 10 year "no fault" reliability warranty.

Space Based Infrared Systems (SBIRS)

Background. Information on SBIRS was obtained through correspondence with the LAAFB Centralized RFP support team, review of the RFP, and through the World Wide. Web(SAFAQ/acq_ref/sbirs_1, LAAFB/pa/sbirs_fs: WWWeb) The SBIRS programs primary mission is to provide initial warning of a ballistic missile attack. The baseline consists of two components: The high component, which operates in geosyncronous and highly elliptical orbits, and the low component which operates in a low earth orbit. In addition to the satellites, the system consists of a ground segment that will be incorporated into an integrated defense support

program. The SBIRS will provide theater missile defense track data to the interceptor systems and defense battle manager. A contract was awarded to TRW/Hughs in 1995 and this RFP excludes them from competition. The goals of this solicitation are to demonstrate and validate critical design issues, stimulate competition, and resolve key technical and producibility risks. This effort will complement the TRW effort and will be followed by a full and open competition for the pre-EMD phase in FY99. This solicitation is currently in source selection.

General Characteristics. The RFP package is 78 pages containing a 2 page SOO. There are 4 CLINs, 4 CDRLs, and 2 mil specs and standards. This solicitation is for alternative designs to the original SBIRS solicitation awarded to TRW and is similar in build. The original solicitation was an acquisition streamlining lead program that reduced mil specs and standards from 65 to 2. This contract will be administered at LAAFB.

Table 5
IMPACT OF CHANGES

Category	Impact
Acquisition Management Plan	500+ to 39 pages
Mil Specs & Standards	65 to 2

Evaluation Criteria. Award of this solicitation will be made on a best value basis with the possibility of multiple awards existing. The areas of evaluation are technical and management, cost, and risk with past performance influencing the proposal risk rating. The proposal consists of 6 volumes where volume I, III, and VI each have a 50 page limit. The offerors must submit their version of the Work Breakdown Structure, Integrated Master Plan, SOW, Award Fee Plan, and CDRLs that satisfy the requirements and objectives.

Special Features. The distinguishing feature of this solicitation is the governments intention to award to more than one contractor in the effort to promote competition.

T-38 Avionics Upgrade

Background. Information on the T-38 Upgrade was obtained through correspondence with AFMC/PK, the PCO, and review of the RFP. This is a program to acquire an avionics upgrade system for the T-38. This solicitation also seeks to purchase the Logistics Support necessary to support the new upgrade equipment. The upgrade is made up of the

upgraded avionics suite, operational flight trainer, and unit training devices. The RFP will result in three separate contracts to one contractor who will have total system responsibility. The three contracts consist of an EMD/production contract to design and produce the avionics suite and corresponding training devices, a logistics support contract to support the avionics through a contractor operated and maintained base supply, and a logistics support contract to provide maintenance on existing simulators and the new trainers as they are delivered. This contract is administered at Wright-Patterson Air Force Base.

General Characteristics. The entire RFP package is 327 pages, reduced from an original 527 pages, containing 29 pages of SOW guidance and 16 pages of Systems Requirement Document. Summing all three contracts, there are a total of 58 CLINs, 65 CDRLs, and 0 mil specs and standards.

Table 6
IMPACT OF CHANGES

Category	Impact
RFP Size	527 to 327 pages
Mil Specs & Standards	50 to 0

Evaluation Criteria. Award of this solicitation was made on best value to the government. There were 9 volumes required in the proposals with a combined page limit of 325 pages for the first three volumes. The proposals contained a contractor created Work breakdown Structure, Integrated Master Plan, and SOW that met all objectives in the SOW guidance. The evaluation criteria consisted of technical, systems engineering/program management, and cost. Performance risk was considered based on the offerors past and present performance.

Special Features. One special feature of this RFP is the Warranty clause. Each offeror proposes their own weapons system warranty. A distinguishing characteristic of this solicitation is that 3 contracts are going to be awarded to a single contractor from a single RFP document. The contractor will be awarded the production, support, and maintenance contracts at the same time.

The following two tables summarize the data gathered on the 6 programs examined in this thesis. The first table provides general characteristics and the second table highlights the impact acquisition reform has had on solicitations. Table 8 figures are expressed as the percent

of requirement that remains in the final solicitation. An example, a final solicitation that reduces total pages by 95% would have a current level of 5%, or 5% of previous requirement.

Table 7
DEMOGRAPHIC PORTRAIT

Item	Prog 1	Prog 2	Prog 3	Prog 4	Prog 5	Prog 6	Avg
Total Pages	105	328	400	512	78	327	206
Number of CLINs	11	20	13	82	4	58	31.3
Number of CDRLs	19	3	17	39	4	65	24.5
Number of Military Specs/Standards	4	2	0	0	2	0	1.3

Table 8
IMPACT OF ACQUISITION REFORM ON RFPs
(% OF PREVIOUS REQUIREMENT)

Item	Prog 2	Prog 3	Prog 4	Prog 5	Prog 6	Avg % of Prev Req
Number of pages - SOW to SOO	5%	10%	5%	*	*	7%
Number of CDRLs	2%	53%	12%	*	*	22%
Number of Military Specs/Standards	1%	0%	0%	3%	0%	.8%

* not applicable/available

V. Conclusions and Recommendations

Chapter Overview

Chapter IV provided the findings of the research. Chapter V offers analysis, conclusions, and recommendations for future acquisition reform. This section draws observations from the collected data and answers the underlying question of this thesis, "Are the previously mandated acquisition reforms beneficial to the government?" The recommendations section answers the question "How far should we take acquisition reform?" The final section provides recommendations for further research.

Analysis

This section will provide initial analysis of research questions 2 through 4, research question 1 was answered during the literature review.

Research Question Two. Is performance-based contracting in the DOD a reasonable adaptation of commonly followed commercial practices?

Solicitations incorporating performance-based concepts do a better job than previous solicitations at capturing the benefits of commercial practices. The number of military specifications and standards has been greatly reduced in all of the cases. In three instances they have been completely eliminated. The use of a small number of key performance objectives closely resembles what would be found in a commercial acquisition. The number of required data items has also been greatly reduced and is more in line with commercial acquisition practices. Although much improved, the solicitation packages are still much larger than strict commercial practices would dictate. This is due in part to the number of required clauses and protective measures the government is reluctant to eliminate. The government has learned from some hard lessons that it needs some method to ensure it receives the product it pays for. Lengthy incentive fee arrangements and the complexity of the items being procured also contribute to the size of the solicitation package.

Research Question Three. Do acquisition reforms benefit the Government in the pre-award phase of the acquisition lifecycle?

There have been several benefits resulting from the incorporation of acquisition reforms. The size of the RFP documents have been reduced. This saves paper and personnel time. The amount of required government oversight has been reduced. This is expected to save money by reducing the size of oversight teams. The reduction in the number of required data items is expected to save both money and contractor and government personnel time.

The contractor responses to the performance specifications have exceeded the government expectations in several cases. The requirement for the WCMD was that it be able to hit within 100 feet. The contractors proposals improved that to 85 feet. In the GPS II solicitation, the government expected the acquisition lifecycle to take 7 years but the contractors proposal reduced it to 5 years.

The reforms have also accelerated the pre-award phase of the lifecyle. The introduction of the SAMP has reduced the amount of required paperwork and the inclusion early on of the strategy panels has accelerated the review process.

Research Question Four. Has the use of performance-based contracting had an impact on the level of competition?

There is no data available to support a conclusion that performance-based contracting has affected competition. The opinion of interviewee's is that there has been no noticeable change in the level of competition for these cases compared to similar acquisitions in the past.

Conclusion

This research study validates the findings of the studies that recommended acquisition reform. The acquisition reform implemented by the Acquisition Streamlining Act of 1994 and the Lighting Bolt initiatives appears to have resulted in several noticeable improvements. This study outlines the advantages and disadvantages seen with pre-award acquisition reform.

Government. The government, as well as the American taxpayer, has benefited from acquisition reform. The reductions in defense spending and associated draw downs have forced System Product Offices to reduce their manning levels. Acquisition reform has been implemented concurrently with the draw downs. Fortunately, it has been a major contributor to the SPOs ability to continue to function effectively. The acquisition lifecycle, from

conception of the need to award of a contract, requires fewer people than previous acquisitions primarily due to a reduction in government oversight. The government is placing more on the contractor's manufacturing, accounting, and inspection systems and does not need teams of people to ensure compliance with a standardized government system. The government is also relying more on the contractor's technical experts to design the system and work out solutions. The government is also consolidating many separate contracts for the purpose of making a single contractor the system integrator. The GPS II program office estimates that by consolidating six ground control contracts it has saved over $80M in program costs. In the past, the government has often been responsible for system integration and any problems that related to this. Many of the Statement of Objectives now include integration of the overall system as part of the contract. This is in line with the performance concept that places more responsibility on the contractor. Our goal is to tell them what we need and then let them work out the best method of providing it.

The amount of time required for the acquisition lifecycle is expected to decrease. The acquisition

management plan process has been consolidated and it takes less time to get a new-smaller Single Acquisition Management Plan (SAMP) approved. The learning curve for creating streamlined RFPs is expected to take effect and future RFPs should take less time than these initial cases.

The cost savings for acquisition reform is estimated to be high. The reductions in the RFP requirements for CDRLs and Military Specifications should produce substantial savings. The contractor will not have to build the cost of producing thousands of pages of data items into the cost of their proposal. They can also avoid the cost of the extra accountants, analysts, and secretarial support needed to create these unique reports.

Another area of cost savings is expected because contractors will not have to follow antiquated military specifications and standards. The contractor will be free to use the newest and most efficient technology to satisfy the governments requirements. In addition, they will be able to use more commercial items and processes which have been proven to save the costs of developing totally unique government items. The ability to combine government and commercial work may also have the benefit of increasing

competition as more companies find it easier to enter the government market. The administrative cost of conducting business with the government has long been a barrier to entry in the government market. Contractors have had to set up separate accounting systems and implement outdated processes. As restrictive regulations and requirements decrease, the transaction cost of conducting business with the government should also decrease. The lower cost is expected to attract more businesses and result in increased competition for certain acquisitions.

Even though acquisition reform overall has been beneficial to the government, there are some areas of concern. These areas include risk, personnel reductions, and loss of control. The use of performance specifications has shifted design risk to the contractor. The contractor is now responsible for the specifications and the responsibility to produce a working unit. This increase in risk will be followed by an associated increase in price. The government must be careful to maintain a desirable risk allocation between the contractor and the government.

Another area of concern is the reduction in manpower that is happening in conjunction with acquisition

streamlining and the budget cuts. The level of manning is based on benefits attributed to acquisition reform. A problem occurs if the manpower cuts exceed the actual benefits received from the streamlining. This is of particular concern to System Program Offices (SPOs.) The SPO's primary function is to ensure delivery of an item that satisfies the governments requirements on-schedule and on-budget. Strictly speaking, the SPO has benefited from acquisition reform but the associated reductions in manpower have created a new problem. The reductions in the level of oversight will balance out some of the cuts but there is generally going to be less expertise on the government side to ensure we are getting what we pay for. SPO personnel will eventually have to become experts in more than one area. As members become experts across functions, such as logistics and contracting, they may lose depth of knowledge. More importantly, their attention may be divided which would increase the possibility for mistakes and oversights.

A third area of concern is a reduction in design control that will inevitably come with greater reliance on performance specifications. Allowing the contractor design freedom is generally looked on as a benefit. It lets the

contractor propose creative solutions and shifts design risk from the government to the contractor. If we go to far in this direction, we might start getting items that satisfy a requirement but are not really what we need. A one page Statement of Objectives may not always be superior to a three page Statement of Objectives. Particularly, if the one page does not deliver the item we need. This problem can be averted by careful consideration of the type and number of requirements needed to deliver a satisfactory item.

Operational User. The operational units will benefit from acquisition reform in several ways. The user should field systems in less time. The reduction in bureaucratic oversight and the ability to incorporate already developed commercial technology into new systems should result in a quicker total acquisition time. The user should get a better system because contractors will have more freedom to incorporate the latest technology into a unique and creative solution. Another result of the reforms that should benefit the user is the increased ability to award on a best value basis. The Source Selection team has more latitude in considering improvements to the requirements. Further, they

have more freedom to consider past performance. Related to this is the increased use of awarding to multiple contractors, forcing more "fly offs". This practice should highlight the advantages of unique systems while keeping the cost down. Further, it should maximize the influence of market forces.

Contractor. The Government is not the only beneficiary of acquisition reform. The contractor should enjoy many of the advantages mentioned above but from a different perspective. Nearly all of the companies that deal with the Department of Defense are strongly behind acquisition reform. For many years, contractors have been petitioning the Government to reduce the amount of time and paperwork it takes to do business with the Government. Reducing the number of CDRLs and Mil Specs will allow companies the ability to combine an increasingly large portion of their commercial and defense business. This should produce leaner and more efficient suppliers. Companies resisting acquisition reform tend to be smaller and it is likely they will be hurt by an increase in competition. This environmental adjustment may not be avoidable, but only time will tell.

Recommendations

The changes in acquisition reform over the last several years have greatly changed the method of government contracting. The initial instability created by these changes has subsided and acquisition professionals now have an understanding of what the reforms are intended to accomplish. These reforms are being implemented now and their effectiveness will have to be evaluated over time. Because of the trauma to the system, it is recommended further change be delayed while all involved adjust.

One area that needs to be developed further is the integration of the reforms into the entire acquisition process. The development of the RFP has been the main focus of attention. The next step is to ensure the source selection evolves along with the RFP. The Source Selection must focus on the risks and discriminators associated with performance-based contracting and not be conducted in the same manner as previous Source Selections. Evaluation criteria, to include guidelines for their use, must keep pace with the changes.

Any additional move toward commercial business practices or performance-based contracting may require changes in laws. For Example, the DOD can decrease uncertainty and increase supplier loyalty by guaranteeing follow on contracts or extending performance periods with options but the laws concerning multi-year funds and competition requirements will have to change.

Future Research

There are many areas that will be open to further research once some time has past. Most importantly, research needs to conducted to see if the acquisition reforms covered in this thesis ultimately benefit the government. However, it will be many years before the cost and delivery data is available to conclusively answer this question. In the short term, further research is needed to determine the extent of the costs and benefits associated with this past round of reforms. The effects of using commercial practices, shifting design risk, and changes in competition are all areas in need of further research. The consequences of reducing System Product Office manpower is an additional area of research. In short, there is no area

of this document that is final in its assessment and the opportunity for research is abundant in the realm of acquisition reform.

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Vita

Lieutenant Jason J. Bock was born on 23 November 1970 in Richfield, Minnesota. He graduated from Park Center High School in 1989 and entered undergraduate studies at the United States Air Force Academy. He graduated with a Bachelor of Science degree in Economics in June 1993.

His first assignment was at Shaw AFB as a contract administrator. In September 1996, Lt Bock graduated from AFIT with a Master of Science degree in Contract Management. He is currently performing duties as a contract administrator for electronic systems, Electronic Systems Command, Hanscom AFB, MA.

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13. ABSTRACT *(Maximum 200 words)*

The purpose of this study was to develop insights into the impact acquisition reforms have had on pre-award solicitations. The changing nature of the marketplace and the reduction in the size of the defense budget has brought about a series of sweeping acquisition changes that include the Federal Acquisition Streamlining Act (FASA) and Lighting Bolt initiatives.

A qualitative analysis of six cases and interviews of people actively involved in the solicitation process revealed acquisition reform benefits: increased performance, cost savings, and reduced acquisition time. These benefits were achieved through the use of performance-based contracting and adaptation of several commercial business practices. Performance-based contracting was not found to affect the level of competition for solicitations.

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The purpose of this questionnaire is to determine the potential for current and future applications of AFIT thesis research. **Please return completed questionnaire** to: AIR FORCE INSTITUTE OF TECHNOLOGY/LAC, 2950 P STREET, WRIGHT-PATTERSON AFB OH 45433-7765. Your response is **important.** Thank you.

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a. Yes b. No

3. **Please estimate** what this research would have cost in terms of manpower and dollars if it had been accomplished under contract or if it had been done in-house.

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4. Whether or not you were able to establish an equivalent value for this research (in Question 3), what is your estimate of its significance?

a. Highly Significant b. Significant c. Slightly Significant d. Of No Significance

5. Comments (Please feel free to use a separate sheet for more detailed answers and include it with this form):

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